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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO..
09/892,027	06/25/2001	Mark R. Parker	D/A1248	1841

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EXAMINER

HUNTSINGER, PETER K

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/892,027		PARKER ET AL.	
	Examiner		Art Unit	
	Peter K. Huntsinger		2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5, 10 and 11 is/are rejected.
- 7) ☒ Claim(s) 3, 6-9 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 6/20/06 have been fully considered but they are not persuasive.

The applicant argues on page 5 of the response in essence that:

Terasawa teaches away from fast print modes.

- a. Kadota and not Terasawa discloses selecting a fast mode, wherein fast print mode is accomplished by increasing droplet spacing to reduce the number of rows and columns that must be marked thereby increasing print speed (col. 2, lines 8-19). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The applicant argues on pages 5 and 6 of the response in essence that:

Kadota teaches that fast print mode produces degraded quality.

- b. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a fast print mode without producing degraded print quality) are not recited in the rejected claim(s). Although the claims are interpreted in light of the

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specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The applicant argues on page 6 of the response in essence that:

One skilled in the art would not combine Kadota with Terasawa.

c. Terasawa and Kadota are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to increase the space between rows and columns of an image. The motivation for doing so would have been to increase the printing speed by reducing the amount of ink utilized. Applicant's argument that the combination would result in a degraded image are moot as this does not defeat the motivation for combination of Kadota and Terasawa.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terasawa Patent 6,102,520, and in further view of Kadota Patent 6,166,824.

Referring to claims 1 and 4, Terasawa discloses a method for improving black print pixel quality in a color printer having at least one color ink and black ink,

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comprising: printing no more than two droplets at a single location (col. 12, lines 4-5); providing an image to be printed on a substrate (col. 2, lines 26-29); determining a location on a substrate where a black pixel is to be printed (col. 6, lines 46-51), printing a droplet of color ink at the location, and printing a droplet of black ink on top of the color droplet (col. 12, lines 4-5) at the same location (col. 12, lines 19-23), wherein the droplet of color ink and the droplet of black ink are of substantially the same size (Fig. 16A), forming a single black pixel having increased density of substantially the same size as each of the black and color droplets at the location when the two droplets solidify (col. 12, lines 16-18). As is shown in Fig. 16A, the black and color ink droplets are placed at the same location. The additional black ink droplet is one alternative of the invention. Terasawa does not disclose expressly increasing the space between rows and columns of the image. Kadota discloses selecting a fast mode, wherein fast print mode is accomplished by increasing droplet spacing to reduce the number of rows and columns that must be marked thereby increasing print speed (col. 2, lines 8-19). Terasawa and Kadota are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to increase the space between rows and columns of an image. The motivation for doing so would have been to increase the printing speed by reducing the amount of ink needed. Therefore, it would have been obvious to combine Kadota with Terasawa to obtain the invention as specified in claims 1 and 4.

Referring to claims 2 and 5, Terasawa discloses wherein the color printer includes cyan, magenta and yellow and wherein the step of printing a single droplet of

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color ink comprises printing a single droplet of one of cyan ink, magenta ink and yellow ink at each of the black locations (col. 14, lines 6-15).

4. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terasawa Patent 6,102,520 and Kadota Patent 6,166,824, as applied to claim 5 above, and further in view of Fukasawa Patent 6,466,332.

Referring to claim 10, Terasawa discloses distributing color ink drop among black locations but does not disclose expressly determining the color ratio by gray balancing. Fukasawa discloses determining the ratio of cyan droplets, magenta droplets and yellow droplets printed with the black droplets by gray balancing (col. 7, lines 31-34). Terasawa and Fukasawa are combinable because they are from the same field of determining black color generation. At the time of the invention, it would have been obvious to a person of ordinary skill in the to determine the color ratio to distribute color ink at black locations by gray balancing. The motivation for doing so would have been to produce an unremarkable black color. Therefore, it would have been obvious to combine Fukasawa with Terasawa to obtain the invention as specified in claim 10.

Referring to claim 11, Terasawa discloses distributing color ink drop among black locations but does not disclose expressly determining the color ratio to minimize the chromaticity in black. Fukasawa discloses adjusting the ratio of cyan droplets, magenta droplets and yellow droplets printed with the black so as to minimize chromaticity in the black (col. 2, lines 41-49). Terasawa and Fukasawa are combinable because they are from the same field of determining black color generation. At the time of the invention, it

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would have been obvious to a person of ordinary skill in the to adjust the ratio of color ink to minimize the chromaticity of black. The motivation for doing so would have been to produce an unremarkable black color. Therefore, it would have been obvious to combine Fukasawa with Terasawa to obtain the invention as specified in claim 11.

Allowable Subject Matter

KAW
5. Claims 3, ~~6~~⁶-9, and 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

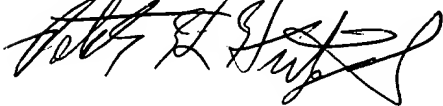
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter K. Huntsinger whose telephone number is (571)272-7435. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on (571)272-7471. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PKH



KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER